

# DAIRY FACTS

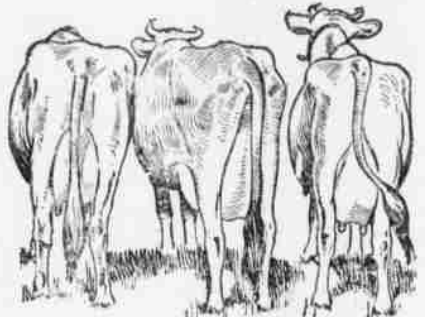
KNOW WHAT COWS ARE DOING

Most Successful Dairymen Have Achieved Attainments Through Intelligent Forethought.

(By WILBER J. FRASER.)

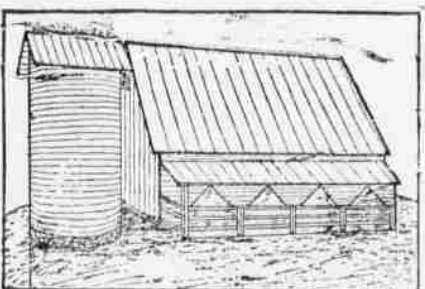
The price of dairy products has advanced, but not in proportion to the advance in the prices of grain and land, and under the present conditions it is the height of folly to milk cows that do not pay expenses. It is, therefore, a matter of great concern to the dairyman to know what his cows are doing.

This is the day of thinkers, and it is



Daughters of a Pure-Bred Jersey Bull, Valued at \$10,000.

to the dairyman's advantage to belong to this class. The proposition confronting the dairyman today is not primarily a matter of location, soil or climate; it is he, himself, that stands in the way of his own progress. Few people realize what intelligence, care and study, what patience, observation and experience are needed to make a good dairyman, to interpret to the mind the language of the cow in such a manner as to understand her every need and be able to properly supply it. The inherent and fatal weakness of many people is that they wholly ignore the really important and decisive factor of success in all fields of human activity, viz., trained and intelligent judgment, based on sound theory and practice. The cause and cure for the backwardness of the dairyman is in his mind, and in the solution of his problems chief prominence must be given to the human factor. The trouble with many dairymen is that they think they know, which is the worst possible kind of ignorance. "The first step of knowledge is to know that we are ignorant." Our



Cattle Feeding Barn and Silo.

most successful dairymen have attained their achievements, not by luck, but through intelligent forethought.

## SECURE THE CLEANEST MILK

Barns Should Be Kept Unpolluted and Yards Free From Manure and Litter of All Kinds.

These rules are given for the cleanest milk obtainable with only little more than ordinary care: Barns should be kept clean and well ventilated, the yards free from manure and litter and drained so that no water will stand there. Before milking, the cows should be brushed around the flanks and udder with a stiff brush; this should be followed with a damp cloth which will remove many of the dust particles and so dampen the others that they will stick to the cow during the process of milking. The milker should keep his hands dry during the milking. Milking with damp hands is a filthy process and is apt to cause the teats of a cow to chafe and become a source of annoyance. The milk should be removed from the barn or milking pen to a milk house just as soon as possible after it is drawn. The milk should be separated and the cream cooled as soon as possible after milking.

## MAKES GOOD FLY REPELLANT

Mixture of Rancid Lard and Kerosene Will Afford Protection—Fish Oil Is Also Used.

Three excellent fly repellants for use on the dairy cow are made as follows:

Rancid lard, one pound and kerosene one-half pint, mixed into a creamy mass and rubbed not too thickly with hand or cloth over the backs of cows, will give protection for several days.

Three parts fish oil and one of kerosene applied with a small spray pump will do the same.

Fish oil 100 parts, oil of tar 50 parts and crude carbolic acid 1 part, applied with a spray pump is a good fly repellant.

All are inexpensive and are recommended by the United States department of agriculture.

## Most Important Task.

Selecting the herd bull is one of the most important tasks you have to do in connection with starting the dairy farm. It is far more of a problem to select the right bull than it is to select the right breed.

## From the Latin.

The Russians, who were slightly influenced by the Latin race, say that "dark bark and the wind carries it away," but the French, Spaniards, Germans and English, who have inherited more than they wish to acknowledge from ancient Rome, all agree that "barking dogs don't bite," and we have also in English the warning to "have a care for a silent dog and still water," which is clearly a free translation of the Latin original.

## GOOD ROADS AND FARMERS.

It costs more for the farmers of America to carry their crops to the railroad station than it costs to carry these crops from the railroad stations to the central market.

These prices are not always shown in the price list or in the statement of annual expenditures, but they are facts nevertheless, and it behooves the farmer therefore to see to it that this item in the expense of marketing is reduced to a minimum.

Let him have a good road all the year round, so that he can do a great part of his hauling to the railroad station and away from it at periods of the year when he can do very little farm work.—Home and Farm.

## FACTOR IN COMMUNITY LIFE.

United States Just Beginning to Realize Importance of Better Highways.

No single factor plays such an important part in the social and business life of a community as the quality of its roads. Aside from the pleasure and convenience of travel possible at all times over permanent roads, there is the financial phase which directly concerns the cost not only of farm produce, but of city products as well; consequently everybody wants good roads. In the matter of paying for permanent highways a generally satisfactory agreement seems to have been reached in the proposed distribution of the cost between the nation, the state, the county and the users of the road in question. As a result within a few years this country will take its rightful leading position among the nations of the world in the number of miles of permanent roads.

In a way it is fortunate that the United States has been rather slow in the matter of roadmaking. The roads now have a lot of lasting materials, such as will withstand the wear of motor traffic, which is fast ruining Europe's century old roadways. Lasting road materials are everywhere present in the form of sand and gravel from pits and stream beds and crushed rock from stone quarries. Combined with portland cement into concrete they form an inexpensive and permanent road surface which successfully resists the usually destructive action of automobiles.

The first consideration in the building of concrete roads is a careful study of local deposits of sand, gravel and rock (and the aggregate) to see whether they are suitable for concrete. Sand must be clean and hard and must grade uniformly in size of grain from one-quarter inch down. The same applies practically to gravel and crushed rock.

There are two phases of the cost of any improvement—first cost and upkeep expense. In both items the concrete road has proved less expensive than any other kind of permanent roadway. Of some three million yards of city and country concrete pavements built in recent years the average first cost has been \$1.22 a square yard. The annual upkeep expense a mile on this concrete has been almost nothing. In Bellefontaine, O., concrete pavements in use eighteen years have cost annually for maintenance only one-quarter of one cent a square yard. Upkeep cost of Wayne county, Mich., country concrete roads for three years has averaged but \$2.50 a mile.

In 1911 the mean cost of repairing macadam roads in New York state was \$800 a mile—10 per cent of the first cost. If these roads had been concrete, practically all the immense expense could have been saved and used in building new roads instead of repairing old ones. With better roads will come better schools, better churches, happier homes, better business and decreased cost of living.

Many Millions For Roads in a Year. Statistics gathered from the thirty-three states throughout the Union, in which records are carefully compiled, tell an interesting story of what this country is doing to keep its lines of communication from district to district in the best possible condition.

In these thirty-three states there are 1,111,599 roads of all kinds. Of these 226,288 are improved, 35,791 miles having been laid out during the year 1911. At the close of 1910 there were 1,111,599 miles of roads in the United States.

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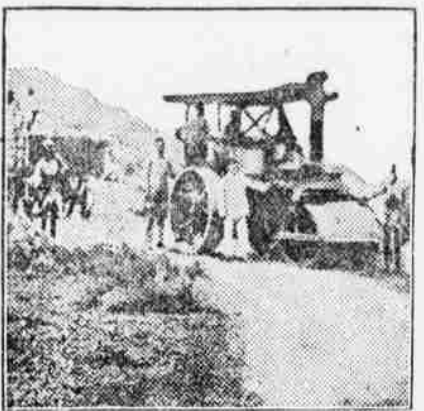
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# FOR BETTER ROADS

## SUPERVISION OF ROAD WORK

Suggestion Made by American Highway Association and National Civil Service Reform League.

A concerted movement for supervision of roadwork throughout the United States has been launched by the American Highway Association and the National Civil Service Reform League. These two great organizations co-operated in the holding of a session at the recent American road congress devoted to a consideration of the merit system in road management. The United States civil service commission was represented by Chief Examiner George R. Wales, who pointed out the manifest advantages



Steam Tractor as Road Maker in India.

of competitive qualification tests as a requisite for appointment to office.

To combat the rather general impression that competitive examinations in all cases mean the answering of stereotyped technical questions, Mr. Wales said:

"For these high-grade positions where men of experience and attainments are needed an examination is given which does not require the competitors to assemble at any place or to answer technical questions. They are called upon to furnish, under oath, a detailed statement of their education and experience, including all the work they have done since graduation. They also may be asked to submit an original thesis or report on published works, and they are required to give the names of persons able and competent to testify as to their experience and personal fitness."

"Confidential inquiry is made by the commission from various sources as well as of all persons referred to by the applicant. Gratifyingly accurate and discriminating testimony is obtained by this means of confidential communication. Such testimony approximates, if not equals, the testimony adduced upon cross-examination in judicial proceedings. A demonstration of the ability of the competitive system to obtain high-class men for technical positions has been made within the past year, in connection with the employment of men to appraise the value of the property of common carriers in the United States."

"For this work the interstate commerce commission required men with qualifications ranging all the way from roadman and chainman to senior positions in civil, mechanical, structural, electrical and architectural engineering, as well as motive power men and expert accountants."

"There have been approximately 15,000 applicants for these positions, and the task of sifting the wheat from the chaff and of grading the wheat after the sifting was one of considerable magnitude; but it was done, and it was done so well that the interstate commerce commission expressed its gratification to find that it could secure a force so well equipped to perform the gigantic task of obtaining an accurate appraisal of the value of common carrier property. A system which can successfully secure a competent force of high-grade engineers for this valuation work could surely provide the proper kind of men to have charge of the construction and maintenance of public highways."

It is expected that steps will be taken to wage an active campaign in every state for the elimination of the spoils system and to substitute for it the merit system.

## Keep Out the Weeds.

It is just as important to keep the weeds from seeding along the public highway as it is to own your own premises. Ripe weed seeds along the highway scatter into the adjoining fields. Cut the weeds and keep them out.

## Rest of Some Benefit.

When the day's work is done drop it there until tomorrow. Have the pleasantest kind of a chat with the wife and children; that is the kind of rest that sweetens toil and takes the snarls out of the threads of life.

## Growing Russian Sunflowers.

The mammoth Russian sunflower is grown for its seeds. While it is blooming at the back of a lot it is a slight work of seeing. The seeds are used for chicken feed and a variety of purposes.

## Carrier Pigeon's Secret.

Recent experience has tended to show that carrier pigeons and other birds of passage are guided by magnetic currents. W. A. Thauzies, a French student of pigeons, has noted that on two occasions when pigeon flights were unsatisfactory magnetic storms were occurring, and the flights of these birds have been becoming often uncertain and erratic since wireless telegraphy came into extensive use.

# DAIRY

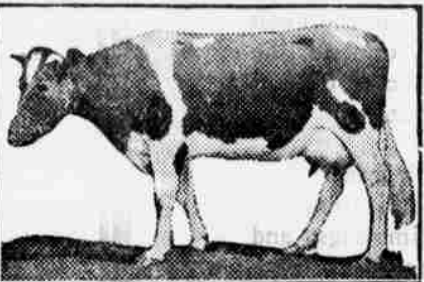
## MISTAKE TO CHANGE BREEDS

Start With the Kind Liked Best and Stick to It—Cull Poor Specimens and Buy Better Ones.

To change breeds every now and then is poor practice. One should be very careful before the particular breed is chosen. To use a Holstein sire one year in order to obtain a large flow of milk, a Guernsey sire another year to secure richness of milk, and a Shorthorn sire the next time, is the wrong principle to employ in the breeding and raising of good cows.

Undoubtedly some good cows will be obtained in the herd from such methods of procedure, but there will be no uniformity of size, form, appearance and production, and the owner has no assurance of what he is going to get in the future. It is a case of too many in the mixture, and it is guesswork as to which one will come to the top.

First, select the breed with great care, then stick to it. If a mistake is made the first time in obtaining poor specimens and poor producers, then rectify the mistake as soon as possible by selecting the right kind of a sire belonging to the same breed to head the herd, or by selling the animals



Typical Dutch Milker.

already bought, and purchasing better individuals belonging to the same breed.

It is usually safer to try to improve within the same breed than it is to improve by changing to a different breed. There are good individuals and good strains within any of the breeds intended for a particular purpose.

## INFLUENCE COLOR OF BUTTER

Markets Demand Yellow Tint Which Is Supplied by Use of Dyes or Character of Cow's Feed.

Although it is a fact that some dairy breeds give yellower milk than others, even though it may be no richer in fat, the thing of greatest influence in color is the kind of feed the cows are getting. Market demands call for a yellow butter, which is supplied in the creamery by the use of certain harmless vegetable dyes, the use of which dairy laws rightly permit.

The color also can be fed into the milk and make the use of dyes unnecessary. Carrots, for example, color milk and cream quickly. One of the natural coloring materials in milk and butter is called carotin, from carrots, and this material is found in many food materials. It is plentiful in fresh green grass, hence the milk colors up well in early spring. Alfalfa hay, cured to have a bright green color, contains good supplies of carotin, which appears in the cream as a result.

Hay which has lost this green color, dry corn fodder, silage, straw, yellow corn and white, wheat, wheat bran, cottonseed meal and other milled feeds contain practically none, and cream from cows so fed will produce a light colored butter unless artificial coloring is supplied. The color adds nothing to the value or digestibility of butter, save in one's mind, but the market demands a yellow butter all the year round and the color must either be supplied in the feed or in the creamery.

## SEPARATION OF SOUR MILK

Pour From One Pan to Another, Breaking Up Curd as Fine as Possible—Prevents Clogging.

Milk that has curdled will separate with difficulty. Such milk should be thoroughly mixed previous to separating, by pouring from one can into another. In this way the curd is broken up as finely as possible, so that it will not clog the machine. The separation of curdled milk finally closes the skin milk tubes, with the result that the milk makes a thinner cream.

On the other hand, when sour milk which has not curdled is separated, the cream produced will be thicker. This is due to the fact that cream from sour milk has a high viscosity, or is less fluid, and a smaller proportion of cream is delivered, containing a higher per cent of fat.

## Ordinary Cow Stalls.

The ordinary cow stalls should be five feet long from the stanchion back to the gutter. This is the standard distance and does for all except abnormally large or small stock. The width of the stall varies somewhat with the breed and size of the cows, from three feet four inches to four feet. Three feet eight inches is a good average.

## His Intention.

"Being of no further use on earth," said Gaunt N. Grimm, "having grown thoroughly tired of trying to convince fools of their errors, feeling sure that none of the said fools will regret my departure any more than I should theirs under similar circumstances, and being as ready to go as I have ever been, I shall now eat the large black wedding cake that my niece has baked for this purpose."

## A Glimpse of Lisbon.

Lisbon leaves the definite impression of a gay, bright capital, if not of a truly beautiful city. Beautiful it certainly is by nature, seated on its lofty hills overlooking the Tagus and interspersed everywhere with semitropical gardens and lawns, but its newer houses are too rectangular, too lacking in imagination, to make anything but rather monotonous streets. Even the Praça do Commercio, though laid out upon a truly magnificent scale, fails to arouse enthusiasm.

This is the city's aspect to the casual visitor who devotes but a day or two to its sights. But to one who is willing to give it a week or more it holds many attractions.

The secker for the picturesque will delight in the water front in the morning hours and in the fisher folk—the men in black bag caps and knee breeches; the women, barefoot, setting out with basket on head to trot the city streets. These fishwives are the most picturesque of the Lisbon types, and most of them are really beautiful, the fine oval of their faces, their smooth complexions and lustrous, almond shaped eyes recalling the Mauresques and clearly bespeaking their oriental origin.—Ernest Peixotto in Scribner's.

## A Pen Portrait of Carlyle.

He looked, I thought, the prophet. His clothes loose and careless, for comfort, now show; the shaggy, unkempt gray thatch of hair; the long head, the bony, almost fleshless face of one who has fasted and suffered; the tyrannous overhanging cliff forehead; the firm, heavy mouth and out-thrust challenging chin—the face of a fighter; force everywhere, brains and will dominant; strength reflected by the deepest eyes, most human, beautiful; by turns piercing, luminous, tender, gleaming; pathetic, too, for the lights were usually veiled in brooding sadness, broken oftenest by a look of dumb despair and regret; a strong sad face, the saddest face I ever studied—all petrified, so to speak, in tearless misery as of one who had come to wreck by his own fault and was tortured by remorse—the worm that dieth not.—From "Contemporary Portraits," by Frank Harris.

## Judged by Appearances.

In "Twenty Years of My Life" Douglas Sladen recalls a story told at the Authors' club long ago by Sir J. M. Barrie against himself and in broad Dorset:

"I expect it was just a ben trovato, but it was none the less amusing. He apologized for being late. He had been to the wrong club. He had never been to the Authors' club before, he said (though he was a member of the committee), so he asked a policeman the way. From the way in which he pronounced the word the policeman thought he meant Arthur's, which was quite near the Authors' club when it was in its temporary premises in Park place. When he got there he found it a very grand place, he said. The club porter looked him up and down and said, 'The servants' entrance is round the corner.'"

## Verdi and His Admirer.

Verdi was once traveling in the same railway carriage with General Tournon. They got into conversation, which soon turned on the subject of music, and the general, who did not know his companion, expressed enthusiastic preference for that of Italy. "I can hardly go so far with you," replied the other. "For me, art has no frontiers, and I give German music the preference over Italian."

## The Historical Bluebeard.

Bluebeard was a historical personage whose name was Gilles de Retz. He was nicknamed "Barbe Bleue" from having a beard of a blue black shade. Persuaded by an Italian alchemist that his strength could be restored by bathing in the blood of infants, he had many children entrapped for this hideous purpose into his castle of Chambois, on the Loire, the ruins of which are still to be seen. At last the horrible suspicions of the country folk as to what was going on were proved, and the monster was burned at the stake at Nantes in 1440.

## The Color of the Eye.

The color of the iris is not uniform in any eye. Some eyes have spots, others stripes, still others blotches of white, green, blue, yellow and black, and the eye takes its color from the predominance of one hue. An eye that is considered gray will often be composed of black and yellow. An eye that is thought to be brown will be very dark red with spots of yellow or blue.

## Crossing the Strait.

Talking about funny typographical errors, the Christian Register recalls how once upon a time a clergyman, writing of his travels in that paper, was made to say that he had crossed the straits of Messina "in twelve hops." It should have been "twelve hours."

## Doesn't Feel Put Out.

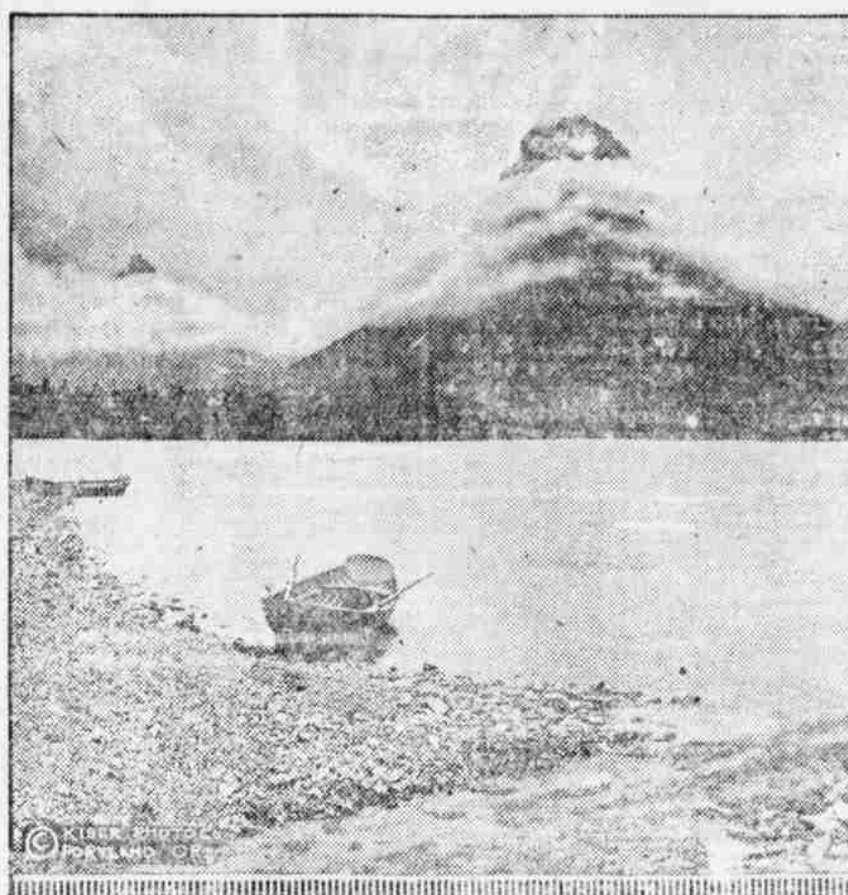
Tess-I broke my engagement with him because he wouldn't give up tobacco. Jess—Then he is an old flame of yours? Tess—Yes, and he's still smoking.

Selfishness is that detestable vice which no one will forgive in others and no one is without in himself.

## Nails Used in Surgery.

It is said that common iron nails are now successfully used by surgeons in the repair of broken bones. The nails, which are heated and the pieces of bone, while the healing process goes on, are soon covered with a sort of rusting membrane and their presence occasions no trouble or ill effects. Slough City (la.) surgeons report cases in which nails and even iron shrapnel have been used for this purpose.

# ALPS IN AMERICA



TWO MEDICINE LAKES.

GLACIER NATIONAL PARK, like other "show" parts of America, benefited by the war during the summer of 1915 and was visited by many thousands of persons who before had scarcely heard of it. It has been a national park since 1910, but, in a period of utter public indifference to the glories of American scenery, it has passed almost unnoticed. Now that America has suddenly become aware that she possesses the most superb accessible scenery in the world, Glacier is destined to rapid recognition as the one real Switzerland of America. It is in northwestern Montana, close to the Canadian border line.

The park derives its name from its 50 glaciers; but there are more than 90, all told, if one classes as glaciers many interesting snow patches of only a few acres each, which, nevertheless, exhibit all the characteristics of true glaciers. Its scenery is strikingly Alpine, yet it possesses individuality to a high degree. In ruggedness and sheer grandeur it probably surpasses the Alps, while geologically it is markedly different.

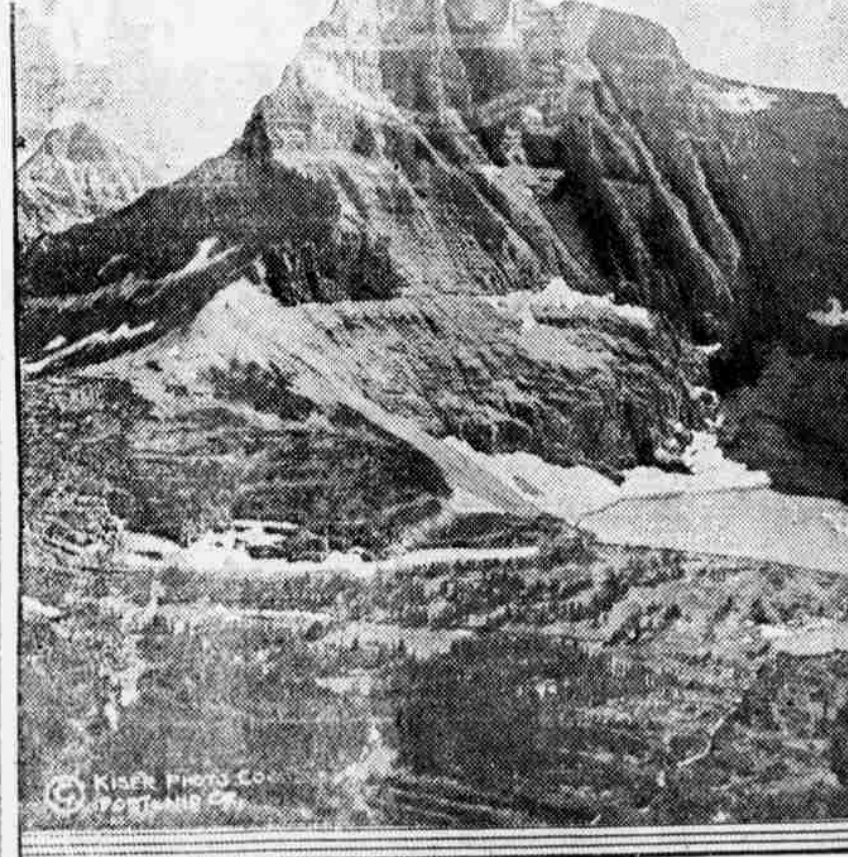
It strongly differentiates also from other mountain scenery in America. Ice-clad Rainer, mysterious Crater lake, spouting Yellowstone, exquisite Yosemite, beautiful Sequoia—to each of these and to all other of our national parks Glacier offers a highly individual contrast.

Region of Remarkable Beauty. To define Glacier National park, picture to yourself two approaching chains of vast tumbled mountains which pass the Continental divide back and forth between them in worm

like twistings, which bear living glaciers in every hollow of their loftiest convolutions, and which break precipitately thousands of feet to lower mountain masses, which, in their turn, bear innumerable lakes of unbelievable calm, offspring of the glaciers above; these lakes, in their turn, giving birth to roaring rivers of icy water, leaping turbulently from level to level, carving innumerable sculptured gorges of grandeur and indescribable beauty.

These parallel mountain masses form a central backbone for the National park. Their western sides slope from the summit less precipitately. Their eastern sides break abruptly. It is on the east that their scenic quality becomes titanic.

To really comprehend the personality of Glacier one must glance back for a moment into the geological past



LOOKING FROM SUMMIT OF CASTLE MOUNTAIN.

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## Riches Await the Finding.

There is a highway in south Africa built from the dust and dirt of the diamond mines near by. A man with sharper eyes than his neighbors purchased the right to work over this refuse and from it has produced a fortune in diamond dust. Every day humanity ignores much in the life of the world around and beneath it—or at least fails to consider it as a factor in the discovery of truth. Gold can be mined wherever human hearts abound.

## Shall Women Propose?

Of course women should propose. It is women who change their entire lives by matrimony; it is women who take on gold and responsibility by matrimony. The woman should surely be allowed to choose the man for whom she feels herself able to work and give. Men propose; men have had it all in their own hands up to now, and if they have married the wrong woman they have only themselves to blame for it.—Women of the World.